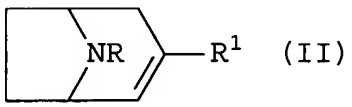
LIST OF CLAIMS

1.-14. (Cancelled)

15. (Currently Amended) A 8-azabicyclo[3.2.1]oct-2-ene compound of Formula II,



(II)

wherein

R is hydrogen, methyl, ethyl or benzyl; and

R^1 is 3-thienyl, 2-thienyl, 2-(3-methoxymethyl)thienyl, 3-quinolinyl, 3-benzofuryl, 2-benzofuryl, 3-benzothienyl, 2-benzothienyl, 2-benzothiazolyl, 2-thieno[3.2-b]thienyl, thieno[2.3-b]thienyl, 2-(3-bromo)benzofuryl or 2-(3-bromo)benzothienyl.

16. (Presently Presented) The 8-azabicyclo[3.2.1]oct-2-ene compound of claim 15 which is

(±)-8-Methyl-3-(3-quinolinyl)-8-azabicyclo[3.2.1]oct-2-ene;

(±)-3-(3-Benzofuryl)-8-methyl-8-azabicyclo[3.2.1]oct-2-ene;

(±)-3-(3-Benzothienyl)-8-methyl-8-azabicyclo[3.2.1]oct-2-ene;

(±)-3-(2-Benzofuryl)-8-methyl-8-azabicyclo[3.2.1]oct-2-ene;

(±)-3-(2-Benzothienyl)-8-methyl-8-azabicyclo[3.2.1]oct-2-ene;

(±)-3-(2-Benzothiazolyl)-8-methyl-8-azabicyclo[3.2.1]oct-2-ene;

(±)-3-(2-Thieno[3.2-b]thienyl)-8-methyl-8-zabicyclo[3.2.1]oct-2-ene;

(±)-3-(2-Thieno[2.3-b]thienyl)-8-methyl-8-azabicyclo[3.2.1]oct-2-ene;

(±)-3-(2-Benzofuryl)-8-H-8-azabicyclo[3.2.1]oct-2-ene;

(±)-3-(2-Benzofuryl)-8-ethyl-8-azabicyclo[3.2.1]oct-2-ene;

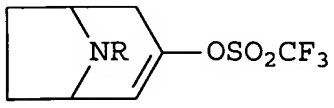
(±)-3-[2-(3-Bromobenzofuryl)]-8-methyl-8-azabicyclo[3.2.1]oct-2-ene; or

(±)-3-[2-(3-Bromobenzothienyl)]-8-methyl-8-azabicyclo[3.2.1]oct-2-ene; or a pharmaceutically acceptable addition salt thereof.

17. (Previously Presently) A pharmaceutical composition, comprising a therapeutically effective amount of a 8-azabicyclo[3.2.1]oct-2-ene compound of claim 15, or a pharmaceutically acceptable addition salt thereof, together with at least one pharmaceutically acceptable carrier or diluent.

18. (Previously Presented) A method for the preparation of the 8-azabicyclo[3.2.1]oct-2-ene compound of claim 15, comprising

a) the step of reacting a compound having the formula



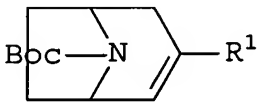
wherein R is as defined in claim 15,

with a compound of formula R^1-X,

wherein R^1 is as defined in claim 15,

and X is halogen, boronic acid, or trialkylstannyl; or

b) the step of reducing a compound having the formula



wherein R^1 is as defined in claim 15.

19. (Currently Amended) A method of treating a disease of a living animal body, including a human, which disease is responsive to the activity of a nicotinic ~~ACh~~ acetylcholine receptor ~~modulators~~ agonist, comprising the step of administering to such a living animal body, including a human, in need thereof a therapeutically effective amount of a compound according to claim 15.

20. (Previously Presented) The method according to claim 19, wherein pain, a disease in the central nervous system, a disease caused by smooth muscle contraction, neurodegeneration, inflammation, chemical substance abuse or withdrawal symptoms caused by the cessation of intake of the chemical substance are treated.

21. (Previously Presented) The method according to claim 20, wherein chemical substance abuse or withdrawal symptoms caused by the cessation of intake of the chemical substance, said chemical substance

abuse being smoking or use of other nicotine containing products and withdrawal symptoms caused by cessation of use of nicotine containing products, is treated.

22. (Previously Presented) The method of claim 21, wherein a disease in the central nervous system, said disease being Alzheimer's disease, Parkinson's disease, memory dysfunction or attention deficit hyperactivity disorder, is treated.

23. (Currently Amended) The method of claim ~~22~~ 20, wherein depression is treated.